REMARKS

Claims 1-42 are pending. Claims 43-54 were cancelled previously, in the Reply to the Office Action filed on April 13, 2007.

Rejection of Claims 1-42 under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a)

The Examiner rejected Claims 1-42 under 35 U.S.C. § 102(b) as being anticipated by, or in alternative, under 35 U.S.C. § 103(a) as obvious over Tabata *et al.*, Journal of Pharm. Sci. 83:5-11 (1994) (hereinafter, "Tabata *et al.*"). The Examiner asserted that columns 2-3 of Tabata *et al.* disclose the claimed method comprising the claimed steps. Applicants respectfully disagree with this Examiner's assertion.

Claims 1-16 and 35-42

Independent Claim 1 recites a method for preparing an injectable microparticle composition for the sustained release of a biologically active agent and independent Claim 35 recites a method for treating a patient using an injectable microparticle composition prepared according to the method of Claim 1. The steps of the method for preparing the microparticles of Claims 1 and 35 include:

(a) preparing a mixture of a biologically active agent, a biocompatible polymer and a solvent, thereby forming a single phase solvent system;

(b) removing the solvent from the mixture, thereby forming a polymer/ biologically active agent matrix;

(c) compressing the matrix using confined pressure compaction at ambient temperature, thereby forming a compressed matrix; and

(d) fragmenting the compressed matrix, thereby forming the injectable microparticle composition.

Tabata *et al.* do not disclose each and every limitation of Claims 1-16 and 35-42, and therefore cannot anticipate the claims under 35 U.S.C. § 102(b). *See In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994) ("[a] rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference.").

More specifically, Tabata *et al.* discuss a method for preparing granules of polyanhydride polymer which might be promising as an injectable system for the controlled release of water-soluble drugs. Only the dyes, acid orange and p-nitroaniline, and gelatin were used in the examples of Tabata *et al.*, no drugs. The method of Tabata *et al.* includes the following steps:

- Preparing a water-in-oil (W/O) emulsion by mixing an aqueous solution of dye with a solution of polyanhydride polymer in chloroform and probe sonicating the resulting mixture;
- Freeze-drying the emulsion to form a powder;
- Compressing the powder into a circular disk; and
- Grinding the disk with a mortar and pestle.

Nowhere does Tabata *et al.* teach a mixture of biocompatible polymer, biologically active agent and solvent, which form a single phase solvent system as required by Claims 1-16 and 35-42. That is, the W/O emulsion discussed in Tabata *et al.* is a two-phase system (water and oil).

Absent this teaching, Tabata *et al.* cannot anticipate Applicant's claimed invention, because it does not disclose each and every element of the claimed invention. The comparative example of Tabata *et al.*, in which the polymer and water-soluble agent are mechanically mixed as two powders, likewise does not provide a teaching which anticipates Claims 1-16 and 35-42, because a mixture of biocompatible polymer, biologically active agent and solvent, which form a single phase solvent system is not disclosed.

Moreover, Claims 1-16 and 35-42 are non-obvious over Tabata *et al.* Tabata *et al.* mention that there are advantages to the described process, which rely on using a W/O emulsion to mix the polymer and water-soluble agent of the prepared granules. For example, Tabata *et al.* discuss that the use of the W/O emulsion method in the described process provides a highly homogeneous mixing of the dye and polymer, providing granules with a smaller initial burst and slower release profile than the comparative compression method. As such, a person of ordinary skill in the art would be motivated to use the W/O emulsion method to complete the mixing step, because Tabata *et al.* contributes the advantages of the resulting granules to the use of the W/O emulsion. In other words, one of skill in the art would not be motivated to modify the step in the Tabata *et al.* process upon which the advantages of the process rely, by using an entirely different mixing step that provides a different dynamic between the polymer and agent. That is,

a system where the agent is dissolved in water and surrounded by a layer of organic solvent and polymer provides a very different dynamic than a single phase solvent system. As this is the case, one of ordinary skill in the art would not substitute the single solvent system of Applicant's invention for the W/O emulsion system of Tabata *et al.*, with any reasonable expectation of success in achieving granules with the advantages touted by Tabata, because the advantages rely on the use of the W/O emulsion step.

Moreover, dependent Claims 39-42 are novel and non-obvious over Tabata *et al.* for independent reasons. More specifically, Tabata *et al.* do not teach or suggest methods where the biologically active agent is an antipsychotic drug; wherein the biologically active agent is selected from the group consisting of aripiprazole, olanzapine and risperidone; wherein a patient suffers from an affective disorder; or wherein the patient suffers from a condition selected from the group consisting of schizophrenia, depression, and anxiety, as in Claims 39, 40, 41 and 42, respectively. In fact the only agents mentioned in Tabata *et al.* are the dyes, acid orange and p-nitroaniline, and gelatin, and there is no mention of treating specific disorders.

In the view of above, Claims 1-16 and 35-42 are novel under 35 U.S.C. § 102(b), or in alternative, non-obvious under 35 U.S.C. § 103(a) over Tabata *et al.* Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 17-34

Independent Claim 17, discloses a method for forming an injectable microparticle composition for the sustained release of a biologically active agent, comprising the steps of:

(a) forming a mixture of a biologically active agent, a biocompatible polymer and a polymer solvent;

(b) forming droplets of the mixture;

(c) freezing the droplets, thereby forming frozen droplets;

(d) extracting the polymer solvent from the frozen droplets into a non-solvent, thereby forming a polymer/biologically active agent matrix;

(e) compressing the matrix, thereby forming a compressed matrix; and

(f) fragmenting the compressed matrix, thereby forming the injectable microparticle composition.

Claim 34 is directed to a method of using microparticles prepared according to the method of Claim 17.

As discussed in detail above, Tabata *et al.* discuss a method of preparing granules of polymer and water-soluble agent where the polymer and water-soluble agent are mixed using a W/O emulsion and the solvent is removed using freeze drying. Tabata *et al.* do not teach or suggest a method that includes "forming droplets of [a] mixture," "freezing the droplets, thereby forming frozen droplets," and "extracting [a] polymer solvent from... frozen droplets into a non-solvent, thereby forming a polymer/biologically active agent matrix," as stated in Claim 17. As such, Tabata *et al.* cannot anticpate Claim 17 and Claims 18-34 dependent thereon.

Furthermore, as discussed in detail above, Tabata *et al.* tout the advantages of using a W/O emulsion to provide a disk having water-soluble agent homogenously distributed which can then be fragmented. There is no reasonable expectation that the improved granules of Tabata *et al.* can be achieved using a method which forms droplets, freezes the droplets and extracts the solvent from the frozen droplets using a second solvent. In other words, one of ordinary skill in the art would not be motivated to modify the step of Tabata *et al.* (mixing of the polymer and water-soluble agent to form a W/O emulsion) upon which the advantages in the release profile of prepared granules relies.

In the view of above, independent Claim 17 and Claims 18-24 dependent thereon are novel under 35 U.S.C. § 102(b),or in alternative, non-obvious under 35 U.S.C. § 103(a), over Tabata *et al.*

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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